

Sustainable Livelihoods After Disaster

Case: Post Earthquake 27 May 2006 in Yogyakarta and Central Java

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Introduction

- Indonesia is one of the world's richest regions for marine and terrestrial biodiversity. The country's energy resources are likewise vast. These resources must be carefully managed and maintained.
- Two decades of rapid economic development, significant population expansion, and regulatory neglect have placed much of Indonesia's environment in jeopardy.
- Indonesian government faces the challenge of enacting and enforcing stricter environmental legislation. The legal system in Indonesia will have to improve enforcement of environmental regulations against the intentional setting of forest fires and the use of leaded gasoline. In particular, Indonesia will have to address the infrastructure-related problems of deforestation, renewable energy, and inadequate sewerage.
- Moreover, Indonesia's huge forests function as one of the world's main "carbon sinks" (world carbon emissions). The preservation of such sinks is an important aspect of avoiding climate change.
- Issue of climate change that lead to various natural disaster recently in Indonesia, has becoming priority to the Government

Issues on Natural Disaster in Indonesia

- 130 Active volcanoes → potential to volcanic hazards

Recent Earthquake in Indonesia

- ✓ Yogyakarta-Central Java, June 2006
- ✓ Bengkulu-West Sumatera, September 2007
- ✓ Gorontalo-Central Sulawesi, December 2008
- ✓ West Papua, January 2009

- Tsunami : Recent tsunami in Indonesia

Year	Location	No of casualty (people)
1992	Flores Tsunami	1,950
1994	East Java Tsunami	238
1996	Irian Jaya Tsunami	110
2004	Indian Ocean Tsunami	283,000
2006	West Java Tsunami	645

- Floods:

- ✓ Natural Factor (topography, high tide, rainfall)
- ✓ Man-made Factor (change in land use, squatter area in river banks, decrease in river capacities affected by the pile of garbage and lack of maintenance, increase of sedimentation rate, etc)

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Major Catastrophes 2004 - 2007

Location	Demises and Damaged	Damages & Losses (in USD million)
Tsunami Aceh-Nias (December 2004)	165,708 people demises 120,000 houses damaged Public infrastructures damaged	41,000
Earthquake Yogyakarta – Central Java (May 2006)	5,716 people demises 306.234 houses damaged	29,200
Tsunami Pangandaran (July 2006)	645 people demises 1,908 houses damaged	1,200
Jakarta Flood (Feb 2007)	80 people demises 145,742 houses affected	5,100
Earthquake Bengkulu and West Sumatera (September 2007)	67 people demises 13.577 houses damaged	1.800

Number of houses damaged have direct correlation with disrupted livelihood and unemployment, particularly to the poor

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Livelihood Capital Assets

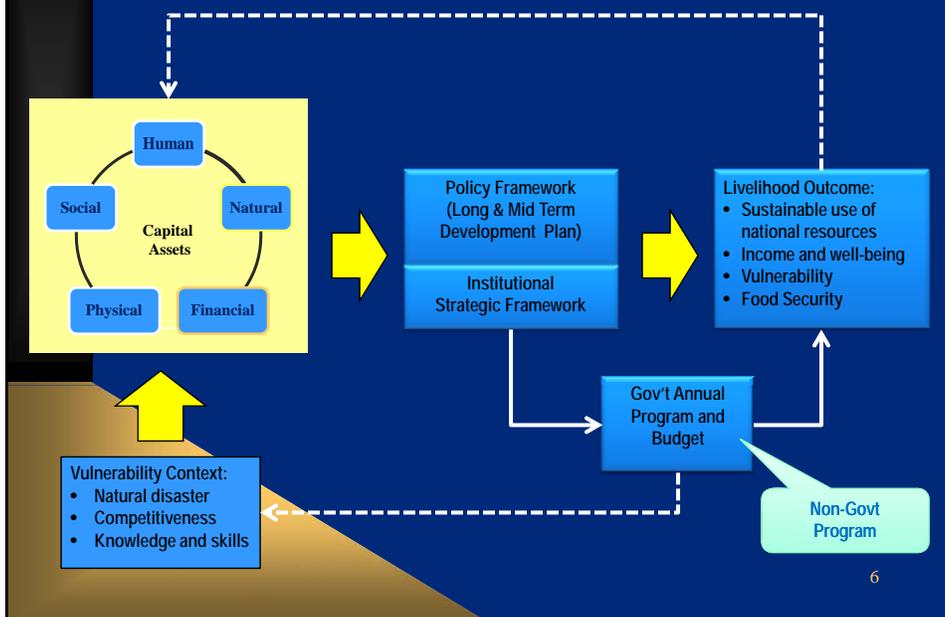
- 1) Sustainable Livelihood Approach in Indonesia: is a way of thinking about the objectives, scope, and priorities for development activities. It helps formulate development activities that are: a) People-centered, b) Responsive and participatory, c) Multilevel, d) Conducted in partnership with the public and non-public sectors, d) Dynamic and Sustainable
- 2) The livelihood assets, which the poor must often make trade-offs and choices about, comprise:
 - a) **Human capital**, e.g., health, nutrition, education, knowledge and skills,
 - b) **Social capital**, e.g., networks, connections, relations, common rules
 - c) **Natural capital**, e.g., land and produce, water and aquatic resources, forest resources and environmental services
 - d) **Physical capital**, e.g., infrastructure (transport, roads, vehicles, secure shelter and buildings, water supply and sanitation, energy, communications, tools and technology
 - e) **Financial capital**, e.g., savings, credit and debt (formal, informal), remittances, pensions, wages.

Financial capital tends to be the least available livelihood asset of the poor, as such that the other types of capital are so important to them.

- 3) Livelihood Recovery Framework in Indonesia developed with needs-based priorities of supporting the affected people – invest in poor people in affected areas – build but not undermine local capacity, focus on people and their needs, learn lessons and establish mechanisms to feed back into policy

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Sustainable Livelihood Framework



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Livelihood Recovery in Yogyakarta and Central Java

- Based on DLA, the livelihood recovery needs is approx. USD 9,300 M, expected inputs is USD 1,300 M for physical capital
- During the period of rehabilitation and reconstruction (2006-2008) public sectors disbursed USD 211,000 and non public sector USD 181,000
- Remaining gaps 2008: USD 908,000 (69%), affected people are still vulnerable to disaster and surviving their well-being
- By 2009, the Government implement a single community-driven poverty reduction program. Allocated funding is estimated at \$1.5 billion per year to cover all desas (villages) in Indonesia. Most of this amount will be provided by the national budget
- Government agencies that have played significant roles for this community development program are Bappenas, The Ministry of Public Works, The Ministry of Home Affairs, The Ministry of Health, The Ministry of National Education, and the Local Government using bottom-up approaches and implementing community based projects

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Lesson-learned from livelihood program in Yogyakarta and Central Java

- Economic recovery needs is always a challenge for a quick assessment, since database is presented in various format at various local agencies that sometimes failed to update
- The contributors to economic recovery carried out individual assessment prior to program design and verify the target beneficiaries
- The local economic development strategy developed post disaster to fill the development gap is not supported by adequate funding, either by public or non public sectors
- Donors/NGOs contributed to the economic recovery, in particular for the MSEs:
 - ✓ UNDP with mini grant scheme for replacing damaged assets, repaired of home-based work spaces, provision of working capital and others services for income-generating activities
 - ✓ USAID – YCAP with income generating scheme through access to finance, capacity building and other services to reach market
 - ✓ Java Reconstruction Funds support for economic recovery will likely to be late for implementation, independent assessment required to assess real needs at the ground
 - ✓ Other NGO' contribution could not be assessed, they are working directly with the target beneficiaries, few were consulted with the local authority
- Mechanism to monitor off-budget assistance is not yet fully operational in the GoI system

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Findings and Challenges

- Most of **physical capital** has been recovered during the rehabilitation and reconstruction period in Yogyakarta and Central Java, by public and non public sector
- The **human and social capital** would need a longer timeframe to recover and improve, in particular to lessen harms and vulnerability to stress and shocks in the future
- The **natural capital** recovery would require a balance between human needs to live and environmental measures for disaster risk reduction. **The DRR-guided spatial planning framework** should have the ability to respond and adjust to actual or potential impacts of future disaster in ways that moderates harm or takes advantage of positive opportunities from the nature.
- The approach to recover **financial capital** is lack of understanding of the underlying causes of poverty or constrain especially affected poor people's access to resources/assets of different kinds, and thus their livelihoods
- The realistic and operational framework required for assessing the direct and indirect effects on people's living conditions than, for example, one-dimensional productivity or income criteria to achieve sustainable livelihood outcome.

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Insurance Pool in Indonesia

- ▶ Among the various new tools to manage and transfer catastrophe risk in Asia are insurance pools. Such pools may be regional or national in nature.
- ▶ One example of a national pool is MAIPARK, the Indonesian earthquake reinsurance pool formed in 2003. Participation in this pool was made compulsory for all general and reinsurance companies in Indonesia.
- ▶ Advantages of insurance pools include: special hazards can be covered that are beyond the capacity of individual insurers; joint and several liability eliminates single party credit risk; reinsurance and securitization can be used more creatively.
- ▶ Market Penetration of Catastrophe Insurance: Non-Life Insurance penetration rate in general is **very low**
- ▶ Increasing awareness for Catastrophe Cover after the Aceh Tsunami and Nias Earthquake. However, demand remains on the low side.

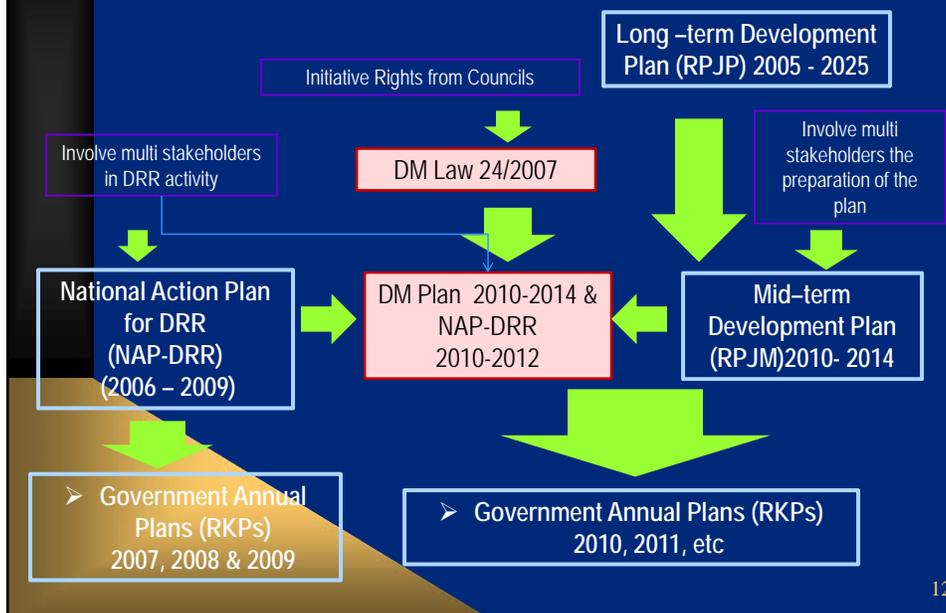
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National approach for disaster management

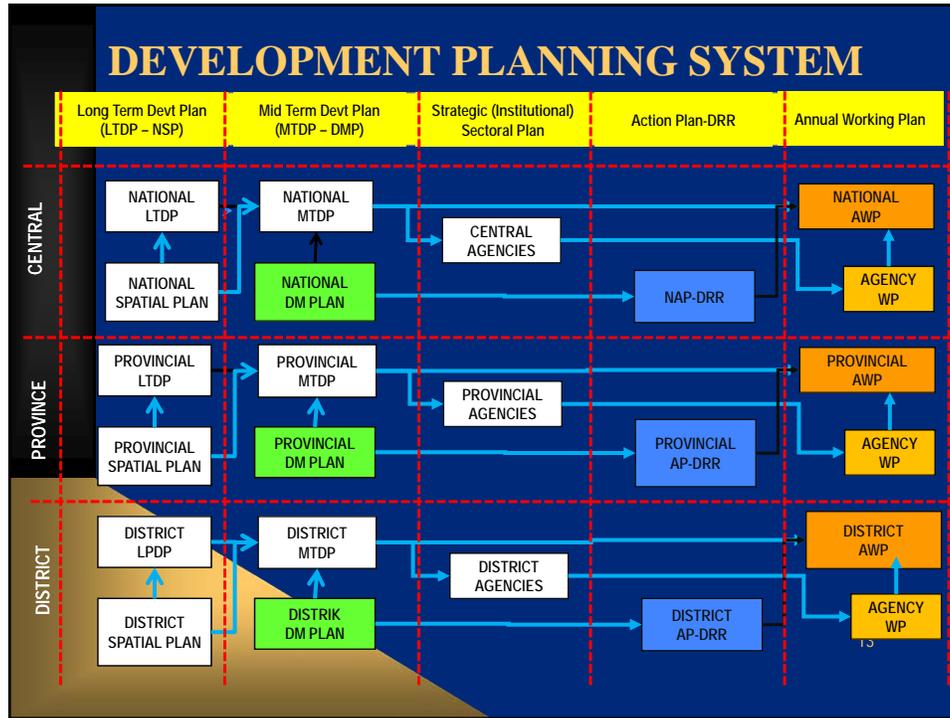
- Coping strategies for livelihood recovery are often a short-term response to a specific shock and disruption, may have significant impact to vulnerability and resilience. Adaptive strategies, on the other hand, entail a long-term change in behavior patterns as a result of a shock or stress.
- Under the Law no. 24/2007, 3 phases of disaster management addressed; a) Pre-disaster, b) During disaster and c) Post disaster
- Focus aims at prevention and risk reduction instead of disaster response
- The National Action Plan for Disaster Risk Reduction and National Strategy for Disaster Management is appropriately placed and mainstreamed into the national and local development planning system regulated by Law no. 25/2004
- Similarly, the Local Economic Development Plan to be incorporated into the Mid-term Local Development Plan and elaborated into the Annual Local Government Working Plan to mobilize the development funding
- Under the Law no. 26/2007; the spatial planning framework incorporates disaster risk reduction into the (safer) human settlement design guideline
- Simultaneously, the concept of safer community through disaster risk reduction introduces through the public awareness and education program and demonstrating pilot community development program at selected prone provinces

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Policy Framework for DRR integration into Development Planning



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The Way Forward

- None of the Sustainable Livelihood Approaches really deal with the issue of how the way resources and other livelihood opportunities are distributed locally
- To develop new initiative on Residential Catastrophic Insurance Scheme and Insurance / Reinsurance of Donor Funds for the Rehabilitation and Reconstruction
- Enforcement of Zoning and Building Code to improve vulnerability of building stock and insurance underwrite practices
- Increase national disaster risk awareness to lessen harms to the people welfare
- Donor, private-sector, CSO and NGO to assist government for implementing the communication strategy for raising awareness and providing assistance to recover and improve livelihood capital assets for sustainability

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